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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/588,980	08/10/2006	Daisuke Shirai	3557G-000068/US/NP	4632
27572	7590	07/23/2008		
HARNESS, DICKEY & PIERCE, P.L.C.				
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BLOOMFIELD HILLS, MI 48303				
EXAMINER				
TRAN, BINH Q				
ART UNIT		PAPER NUMBER		
3748				
MAIL DATE		DELIVERY MODE		
07/23/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/588,980

Applicant(s)

SHIRAI ET AL.

Examiner

BINH Q. TRAN

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This office action is in response to the amendment filed April 04, 2008.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pawson et al. (Pawson) (Patent Number 6,722,124) in view of Tost (Patent Number 6,192,677).

Regarding claim 1, Pawson discloses an SCR muffler (1) which comprises: an SCR catalyst (12) for selectively reducing and purging nitrogen oxide (NOx) contained in exhaust gas; an exhaust pipe (2) that allows the exhaust gas to flow into the SCR catalyst (12); and a reducing agent (9), supplying nozzle (9) that supplies a reducing agent or a reducing agent precursor to the exhaust gas, characterized in that the reducing agent, supplying nozzle is of a double pipe structure (e.g. See Figs. 1-3; col. 3, lines 18-67; col. 4, lines 1-43). However, Pawson fails to disclose the supplying nozzle is of a double pipe structure.

Tost teaches discloses an SCR catalyst (6) for selectively reducing and purging nitrogen oxide (NOx) contained in exhaust gas; an exhaust pipe (41) that allows the exhaust gas to flow into the SCR catalyst (61, 62); and a reducing agent (7), supplying nozzle (17) that supplies a

reducing agent or a reducing agent precursor to the exhaust gas, characterized in that the reducing agent, *the supplying nozzle is of a double pipe structure* (e.g. See col. 8, lines 42-67).

It would have been recognized by one of ordinary skill in the art at the time the invention was made, that applying the known technique of using a supplying nozzle is of a double pipe structure as taught by Tost to the exhaust purifying system of Pawson, would have yielded predictable results and resulted in an improved system for controlling the reducing agent supplying to the exhaust gas system of an internal combustion engine more accurate, to further improve the performance of the engine and the efficiency of the emission system. In addition, the Pawson and Tost references are known work in one of field of endeavor, and such modification is merely the use of known technique to improve a similar device by using a supplying nozzle is of a double pipe structure, and such modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense. (See “KSR Int’l Co. v. Teleflex Inc., 82 USPQ2d 1385 (U.S. 2007)”).

Regarding claim 2, Pawson further discloses a heat retaining material (7) is provided in between an inner pipe and an outer pipe that form the double pipe structure (e.g. See Figs. 1-3; col. 3, lines 18-67; col. 4, lines 1-43).

Regarding claim 3, Pawson further discloses that there is a space (7) defined between an inner pipe and an outer pipe that form the double pipe structure (e.g. See Figs. 1-3; col. 3, lines 18-67; col. 4, lines 1-43).

Response to Arguments

Applicant's arguments filed April 04, 2008 have been fully considered but they are not completely persuasive. Claims 1-3 are pending.

Applicant's cooperation in explaining the claims subject matter more specific to overcome the claim rejections relating to indefinite claim language is also appreciated. Applicant's cooperation in explaining the claims subject matter more specific to overcome the claim rejection is appreciated.

Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection as discussed above.

Applicant's amendment (Claims 1-3) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL See MPEP, 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/BINH Q. TRAN/
Binh Q. Tran
Primary Examiner, Art Unit 3748
July 20, 2008